# Subject Index


**A**

Acetamidase gene 639
Acid phosphatase 113, 521
Acriflavine 127
Alkaline phosphatase 467, 521
Antimycin 475
*Arom* 491
Aromatic amino acid biosynthesis 491
Ars 265
*Ascobolus immersus* 243
*Aspergillus nidulans* 571
*Aspergillus niger* 499
Asteraceae 553

**B**

β-galactosidase 369
β-glucanase 65
*Bacillus* 65
Base analogues 421
*Blastocladiella emersonii* 139
*Brassica* 161
*Brassica napus* 17
Broad bean 265
Bypass to glycolysis 227

**C**

*C-LEU2* 451
*Candida maltosa* 385, 451
Carotenoid mutants 505
Catabolite regulation 399
*cdc2* 119
Cell cycle 119
Cell proliferation 591
Centromere-containing plasmids 435
*Ceratocystis fimbriata* 331, 335
*Chlamydomonas* chloroplast 537
*Chlamydomonas reinhardtii* 605, 611
*Chlorella ellipsoidea* 347
Chloroplast 145
Chloroplast development 25
Chloroplast DNA 25, 265, 347, 553, 617
Chloroplast genome 35, 543
Chloroplast genome evolution 275
Chloroplast heredity 605
Chloroplast promoter 251
Chloroplast RNA (cpRNA) 161
Chloroplast suppression 611
Chloroplasts 259
Chromosomal mapping 93
Chromosome maps 419
Chromosome rearrangement 265
Circular chromosome 565
Class II intron 251
Coding sequence 451
Comparative restriction site mapping 543
*Coprinus* 513
Cosmid library 131
cox1 gene 55
Critical size 591
Curing 315
Cybrids 17
Cytochrome *b* 41, 47
Cytoplasmic male sterility 339

**D**

Deletions and additions 543
Depression 393
Dideoxy sequencing 287
Disomy for chromosome IV 407
Disruption mutants 227
DNA damage 107
DNA damaging agents 211
DNA replication origin 537
DNA/RNA hybridization 161
DNA ligase 107
DNA sequences 537
Domain 491
Dominant lycorine resistance 247
Double-stranded RNA (dsRNA) 483

**E**

Enzyme secretion 521
Enzymes 393
Epilobium 1
*Euglena gracilis* 35
Evolution 543
Excision repair 205
Extrachromosomal inheritance 475

**F**

Flow cytometry 119
Frameshift-Suppression 295
*Fusarium moniliforme* 505

**G**

Gaprepair mutagenesis 85
Gene cloning 97, 185, 217
Gene expression 25, 65
Gene list 575
Gene map 7
Gene mapping 25, 265, 543
Gene organization 553
Genetic analysis 411, 599
Genetic mapping 265, 445, 467
Genetic nomenclature 575
Genomic and cDNA clones 171
Genotoxic effects 211
*Gibberella fujikuroi* 505
Glucose-6-phosphate 429

**H**

*Hansenula saturnus* 127
Heat-shock 145, 595
Heteroplasmicity 611
Hyperresistance 211

**I**

In organello labelling 161
In organello nucleic acid synthesis 151
Inducible repair 321
Inducible stability 85
*inl* locus 131
Integration 499
Interconversion of forms 459
Intron 347
Intron ORF 35
Invertase genes 217
Inverted repeat 275
Inverted repeats 243
Inversion 275, 553, 565

**K**

*Kluyveromyces lactis* 475

**L**

Large rRNA gene 631
Length mutations 617
*LEU2* 377
*LEU2* promoter 369
Leucine 377
Linear plasmid 331, 335
Linear plasmids 151, 243
*Locusta migratoria* 625, 631
Long open reading frame 251
Lycorine 201
*LYS2* 385
*lys9* mutant 393
Lysine biosynthesis 393

**M**

2 μ plasmids 415
Male-sterile cytoplasms 151
Maltose fermentation 97
Maltose utilization 235
Mating-type switching 303
Mercury resistance 399
2 micron circle 85
2 micron DNA 315
3-micron plasmids 79
Mitochondria 41, 47, 151, 327, 513, 529
Mitochondrial 295, 359
Mitochondrial DNA 17, 71, 127, 339, 631
Mitochondrial DNA replication 201
Mitochondrial genome 625
Mitochondrial import 177
Mitochondrial insertions 513
Mitochondrial *rho*$^-$ mutability 407, 411
Mitochondrial RNA (mtRNA) 161
Mitochondrial RNA splicing 185
Mitochondrial status 247
Mitotic chromosome loss 407
Mitotic stability of chromosomes and minichromosomes 435
Modifying genes 411
Molecular evolution 71
Mosaic genes 55
mtDNA 139, 335
Multicopy vector 217
Multifunctional protein 491
mutability 407, 411
Mutagenesis 421
Mutagenic DNA repair 205
Mutants 359

**N**

ND-1 625
*Neurospora* 521
*Neurospora crassa* 131
*Neurospora* homothallic species 309
Neurosporaxanthin 505
*Nicotiana* protoplasts 145
Nontranscribed rDNA clones 309
Nuclear mutants 185
Nuclear ploidy 591
Nucleo-mitochondrial interactions 247

**O**

OFAGE 599

**P**

Penicillium chrysogenum 639
Pentose phosphate pathway 429
Pepper 7
Pet genes 41, 47
Petite negative yeast 127
*pgi1* Δ suppressor mutations 429
Phleomycin resistance 369
Phosphoglucose isomerase 429
Phosphofructokinase 227
Phosphoprotein 165
Photosynthesis 171
Photosystem II gene 165
Phylogeny 309
Plasmid free segregants 415
Plasmid transformation 321
Plastid DNA 1, 7, 165
Plastid evolution 265
Plastid inheritance 1
Plastocyanin 171
Ploidy 595
Polycistronic transcription 165
Poplar pathogen 335
Population heterogeneity 71
Precursor processing 177
Protoplast fusion 599
Psi-factor 79
*psb* C 35
*pyrA* 499

**R**

*RAD4* and *REV2* gene cloning 205
Recombination 303, 339
Recombinant DNA 71
Recombination repeat 565
Regulation 235
Regulatory genes 97
Regulatory sequence 451
Repeated sequence 275
Replication 353
Restriction analysis 309
Restriction and gene mapping 139
Restriction map 7, 565
Restriction maps 553
Retroviruses 193
Ribosomal protein genes 445
Ribosomal proteins 25
Ribosomal protein gene 537
Ribulose-1,5-bisphosphate carboxylase/oxygenase 611
rDNA 259
*Rho*$^0$-petites 201
RNA 359
RNA splicing 55
rRNA 327

**S**

*Saccharomyces* 459, 599
*Saccharomyces cerevisiae* 55, 93, 97, 107, 193, 201, 211, 217, 247, 315, 321, 393, 399, 415, 429, 435, 445, 483
*Schizosaccharomyces* 119
*Schizosaccharomyces pombe* 107, 113, 303, 419, 467, 575
Segregation 353
Sequence 529
Sequence analysis 171
Sequence comparison 287
Southern hybridization 1
Spinach 165, 171, 259, 265
14S rDNA 529
15S rRNA 295
23S rRNA gene 347
5S rRNA genes 571
Switching genes 303

**T**

Taxonomy 617
Terminal protein 331
Terminal proteins 243
*Tetrahymena* 353, 529
*Tetrahymena* 327
Thermotolerance 595
Transcript 171
Transcript mapping 251
Transcription 259
Transformation 131, 385, 499, 639
Translation control 41, 47
Transposable elements 193
Trehalose 97
Trehalose synthase 459
tRNA 327
tRNA genes 193
trnK-UUU gene 251
Ty elements 193
Tyrosine and arginine transport 113
Tyrosine uptake 399

**U**

Unidirectional conversion 513
Upstream homology 287
Uracil permease gene 93

**V**

Vegetative zygotes 605
Virus-like particles 483

**Y**

*Yarrowia lipolytica* 369, 377, 483
Yeast 65, 79, 185, 205, 295, 353, 359, 377, 407, 411, 421, 475, 591, 595
Yeast DNA rearrangement 235
Yeast nuclear genes 177
Yeast transformation 435
Yeasts vectors 315

**Z**

*Zea mays* 151, 617